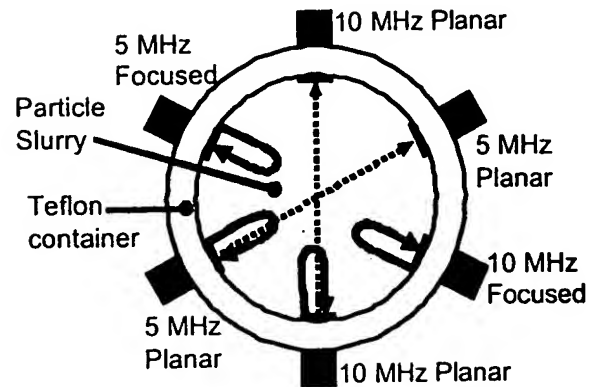
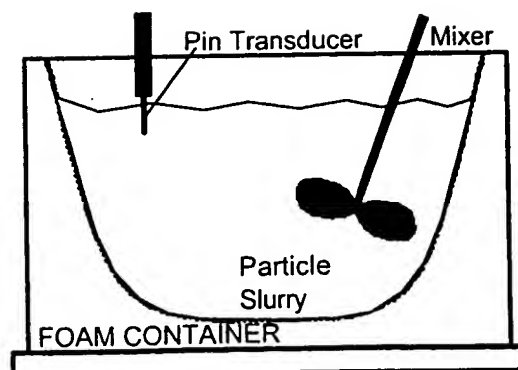


**PROCESS MONITORING AND PARTICLE CHARACTERIZATION  
WITH ULTRASONIC BACKSCATTERING**

Inventors: Paul D. Panetta et al.  
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**Fig. 1**



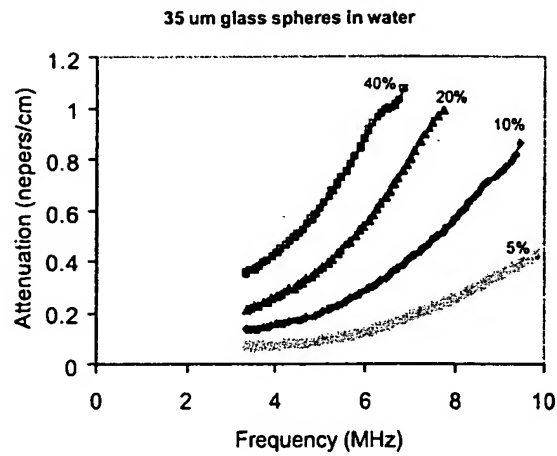
**Fig. 2**

**PROCESS MONITORING AND PARTICLE CHARACTERIZATION  
WITH ULTRASONIC BACKSCATTERING**

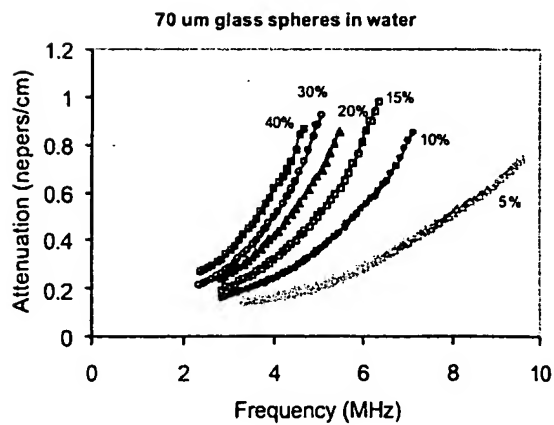
Inventors: Paul D. Panetta et al.

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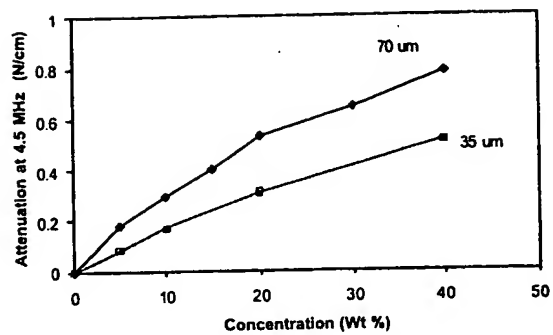
**Fig. 3**



**Fig. 4**

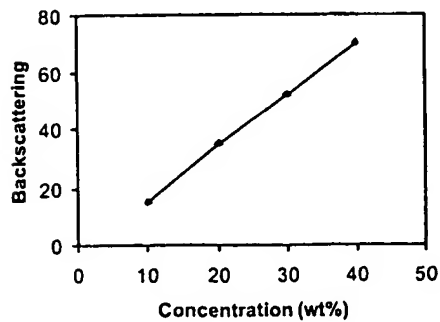
**PROCESS MONITORING AND PARTICLE CHARACTERIZATION  
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**Fig. 5**

**Backscattering vs. concentration  
35 um, 5 MHz (focused)**

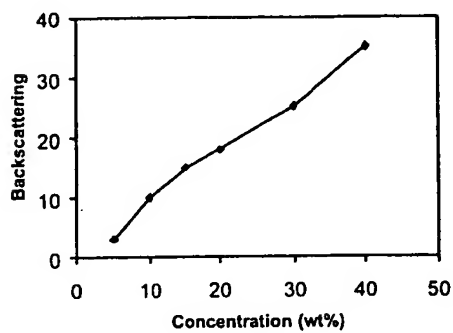


**Fig. 6**

**PROCESS MONITORING AND PARTICLE CHARACTERIZATION  
WITH ULTRASONIC BACKSCATTERING**

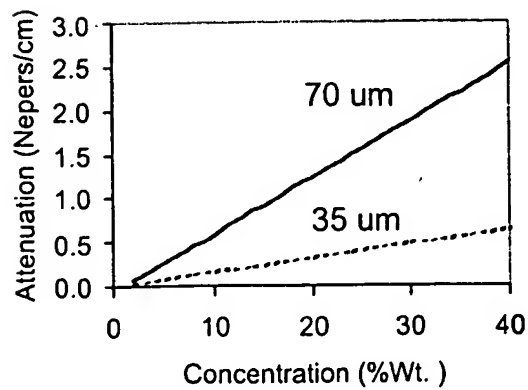
Inventors: Paul D. Panetta et al.  
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**Backscattering vs. concentration  
70  $\mu$ m, 6 MHz (focused)**



**Fig. 7**

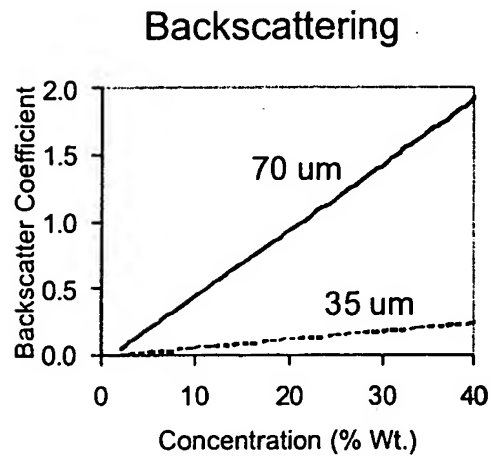
**Attenuation**



**Fig. 8**

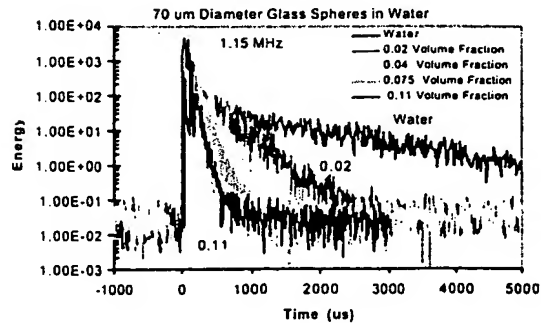
PROCESS MONITORING AND PARTICLE CHARACTERIZATION  
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**Fig. 9**

Diffuse field as a function of particle concentration



**Fig. 10**

PROCESS MONITORING AND PARTICLE CHARACTERIZATION  
WITH ULTRASONIC BACKSCATTERING

Inventors: Paul D. Panetta et al.

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Diffuse field decay rate vs. concentration

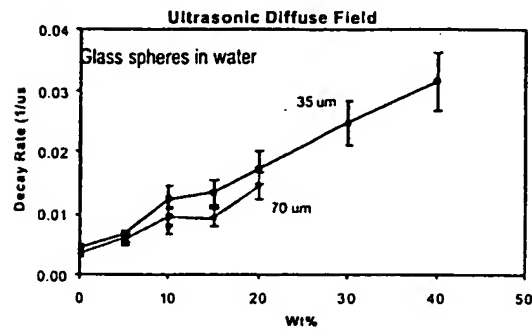


Fig. 11

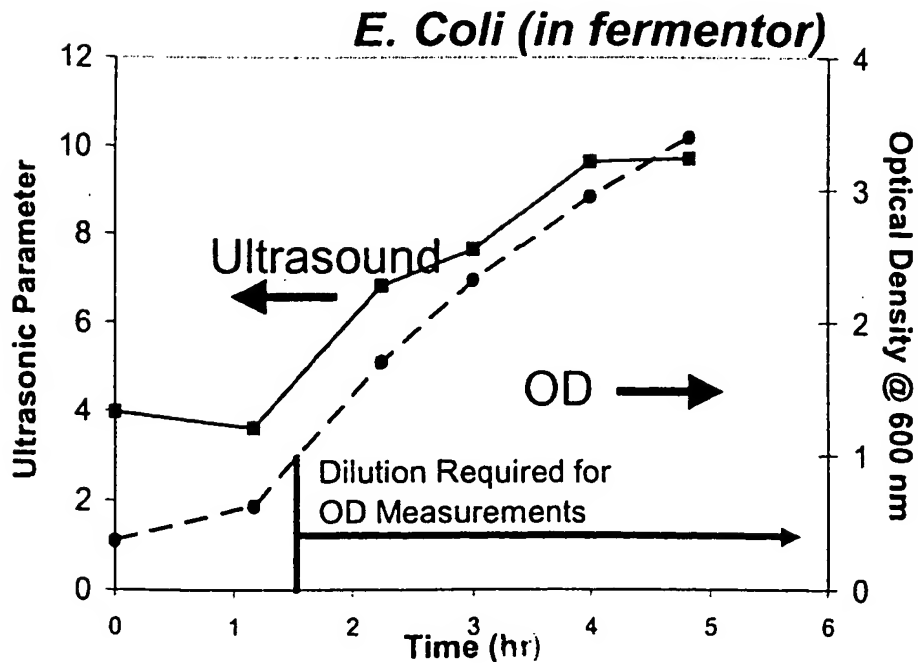


Fig. 12

PROCESS MONITORING AND PARTICLE CHARACTERIZATION  
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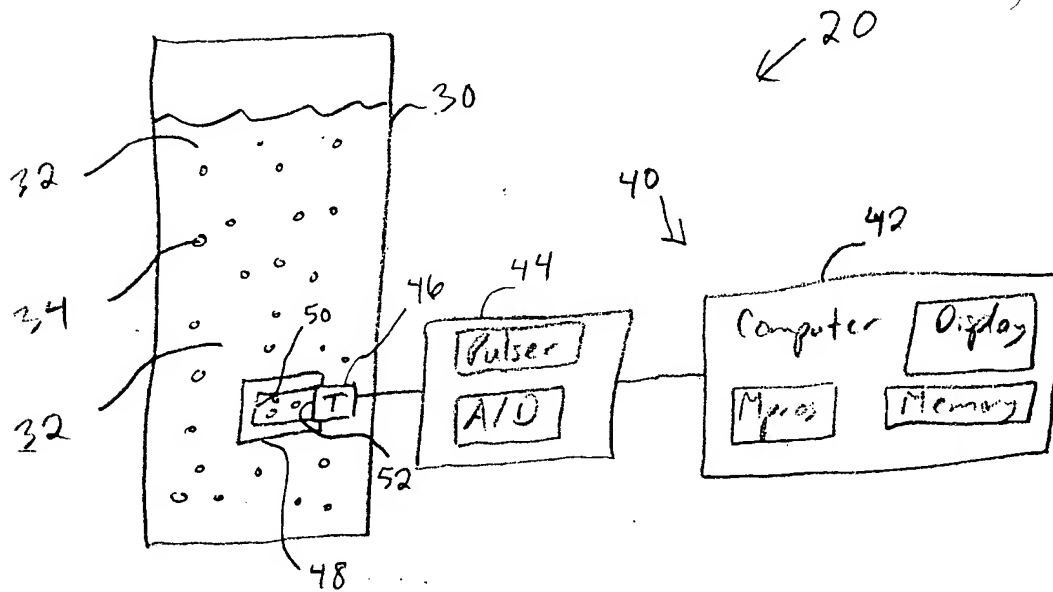


Fig. 13

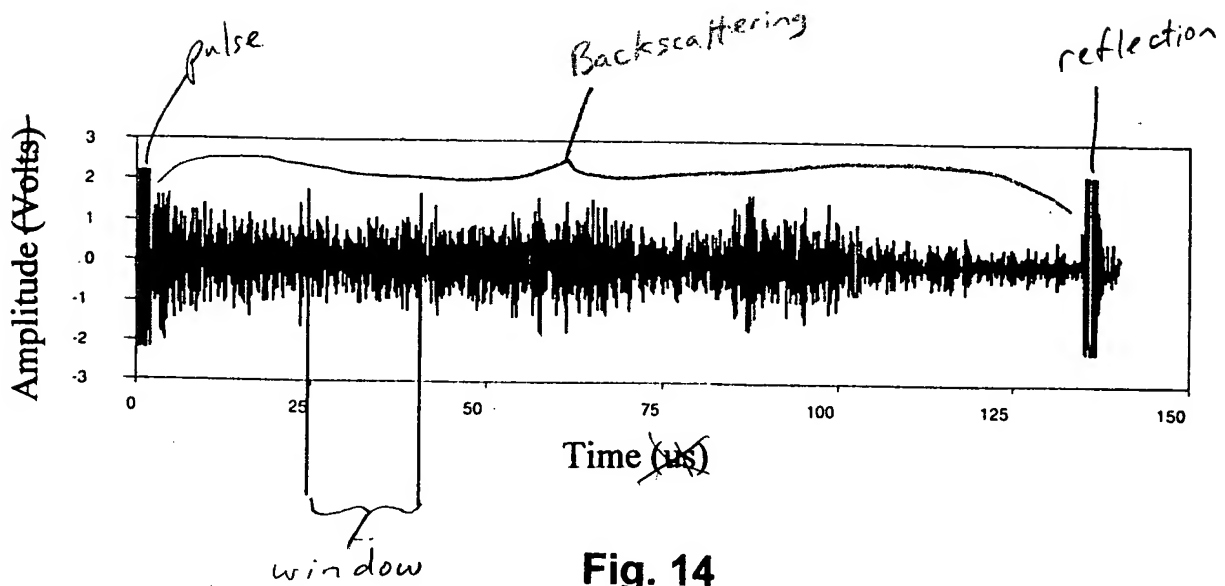


Fig. 14

PROCESS MONITORING AND PARTICLE CHARACTERIZATION  
WITH ULTRASONIC BACKSCATTERING

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## Yeast (Lab dilutions)

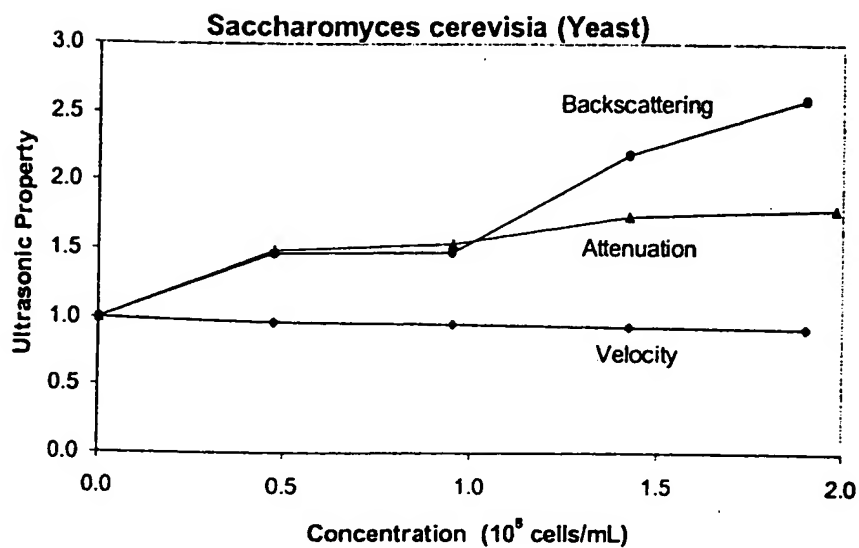


Fig. 15